

Remarks

Claims 1-3, 7-9 and 12-24 are pending in the subject application. Applicant acknowledges that claims 13-24 have been withdrawn from further consideration as being drawn to a non-elected invention. By this Amendment, Applicant has amended claim 1. Support for the amendments can be found throughout the subject specification and in the claims as originally filed (see, for example, Example 3 and paragraph 85 of the as-filed application). Entry and consideration of the amendments presented herein is respectfully requested. Accordingly, claims 1-3, 7-9, and 12-24 are currently before the Examiner and claims 1-3, 7-9 and 12 read on the elected invention. Favorable consideration of the pending claims is respectfully requested.

As an initial matter, Applicant gratefully acknowledge the Examiner's withdrawal of the previous rejection under 35 U.S.C. § 102(a).

Claims 1-3, 7-9 and 12 are rejected under 35 U.S.C. § 103(a) as obvious over *Parce et al.* (U.S. Published Patent Application No. 2005/0238545) in view of *Voss et al.* (U.S. Patent No. 6,706,162) and in further view of *Thurrow* (U.S. Patent No. 4,783,441). The Office Action argues that *Parce et al.* teach an "operation control reagent" comprising a surface adsorbing polymer in a buffered solution to prevent the adsorption of organic material on microchannel surfaces and that such a reaction mixture is not involved in the reaction of interest. The Office Action notes that *Parce et al.* is silent with respect to the molecular weight of a surface adsorbing polymer and relies on *Voss et al.* to cure this deficiency. The Office Action further indicates that *Parce et al.* teach the surface adsorbing polymer include linear cellulose polymers, agarose polymers, acrylic polymers, polyacrylamide polymers and polydimethylacrylamide polymers and copolymers. The Office Action states that *Thurrow* teaches a wide range of polymers that may be used as a surface adsorbing polymer including propylene and ethylene oxides because of their hydrophobic/hydrophilic areas and proportions. Applicant respectfully asserts that the claimed invention is not obvious over the cited references.

In the cited document of *Parce et al.*, the preferred polymer solutions mentioned are polyacrylamides and more preferably PDMA. In the document of *Voss et al.*, only acrylamide polymers, polyvinyl pyrrolidones and hydrophilic N-substituted acrylamide polymers are disclosed. These two documents are completely silent with respect to the use of block copolymers comprising

propylene oxides and ethylene oxides, presently claimed in the pending application, and there is no teaching within the cited references that would have motivated one skilled in the art to look to other block copolymers, such as those recited in the currently claimed invention, for use in the solutions of Parce *et al.* or Voss *et al.* nor is there any reason, based upon the teachings of the cited references, to substitute the polymers of Thurow for those of Parce *et al.* and Voss *et al.* Thurow relates to the stability of insulin in aqueous solution at hydrophobic interfaces. As is noted in the Thurow patent, these interfaces are solution/air interfaces (column 1, lines 50-54) and hydrophobic interfaces that form when aqueous solutions are frozen (column 2, lines 36-40). Thus, the surfaces disclosed in Thurow are described as interfaces between protein-containing solutions and air or interfaces that form as a protein solution is frozen as opposed to an interface between the solid surface of a device and a solution containing nucleic acids. Furthermore, Thurow fails to teach or suggest that the disclosed solutions or polymers would have been useful for solutions containing nucleic acids nor would it appear that the cited combination of references would have provided one skilled in the art with a reasonable expectation of success in using such polymers for solutions containing nucleic acids. Finally, as the structure of the polymer and its hydrophobic/hydrophilic areas are entirely different in a liquid/liquid environment as compared to a liquid/solid environment, one skilled in the art would have not have considered the teaching of this document relevant for the present invention. Accordingly, reconsideration and withdrawal of the rejection under 35 USC § 103(a) is respectfully requested as a *prima facie* case of obviousness for the claimed invention has not been established by the combination of references.

It should be understood that the amendments presented herein have been made solely to expedite prosecution of the subject application to completion and should not be construed as an indication of Applicant's agreement with or acquiescence in the Examiner's position. Applicant expressly reserves the right to pursue the invention(s) disclosed in the subject application, including any subject matter canceled or not pursued during prosecution of the subject application, in a related application.

In view of the foregoing remarks and amendments to the claims, Applicant believes that the currently pending claims are in condition for allowance, and such action is respectfully requested.

The Commissioner is hereby authorized to charge any fees under 37 CFR §§1.16 or 1.17 as required by this paper to Deposit Account No. 19-0065.

Applicant invites the Examiner to call the undersigned if clarification is needed on any of this response, or if the Examiner believes a telephonic interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,

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